FACT

024 EMERGENCY LIGHTING

Kansas State Fire Marshal Prevention Division

FIRE FACT NO. 024 CHECKLIST(s): 99A, 99B, 99C, 99E, 99G

TITLE: EMERGENCY LIGHTING

CHECKLIST ITEM(s): 99A-A3, 99B-B2, 99C-C6, 99D-D12, 99E-E13, 99G-G3

REFERENCE(s): 91-101/9-2.9, 27-2.9, 11-7.2.9, 17-2.9.1, 11-2.9.1, 19-2.4.1

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Emergency lighting is installed to give occupants enough light to reach an exit during an evacuation. Emergencies that require evacuation may also cause the lights to go out. *This is no time to be in the dark*..

The codes allow emergency lighting to be provided in different ways but the most common method is the use of battery powered units. Battery powered emergency lights are relatively inexpensive, readily available off-the-shelf, easy to install, and reliable. Units tested, listed, and labeled by a recognized testing lab (such as Underwriter's Laboratories) help provide an assurance of performance and reliability.

Installation Pointers...

Emergency lighting is required to illuminate routes leading to a required emergency exit: stairs, aisles, corridors, ramps, escalators, and passageways. An average of 1 footcandle at the floor is the minimum required level of illumination but common-sense installation usually easily exceeds this level. Actual measurement of light levels is rarely done. It is easier and usually cheaper to simply install more emergency lighting units in marginal areas. The best way for you to check the level of light is to simply try the emergency lighting on a dark night and see if the exit paths are adequately lit.

The units should be installed to provide coverage over the most area. A two-light unit can be installed halfway down the length of a corridor and the lights pointed in each direction to cover the entire corridor. Don't aim the lights where they will shine directly in someone's eyes. It is better to light the path at the floor and illuminate the exit. Be certain the lights are connected to the lighting circuit so they will work when the lights fail even if other circuits remain energized.

Where Emergency Lighting is Required...

Emergency lighting is required to be installed in the above described areas in these occupancies:

- All places of assembly except existing places of worship containing less than 300 people.
- All education occupancies.
- All health care occupancies.
- All detention/correctional occupancies.
- All hotels and dormitories with more than 25 rooms unless all rooms exit directly to street level.



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• All apartment buildings with more than 12 units unless every unit has a direct exit to grade level.

- All mercantile buildings larger than 3,000 sq. ft. or with sales floors below or above street level.
- All business occupancies with 3 stories or 100 or more people below or above the level of exit discharge or if the building holds 1,000 people or more.
- All industrial facilities unless they are not normally occupied.
- All storage occupancies unless they are not normally occupied.
- All "special structures" such as towers and permanently fixed vehicles and vessels, and Underground structures.
- Not required for open structures or towers using a ladder for an exit, or places not normally occupied by humans.

Testing and Maintenance.

Emergency lighting systems and units must be periodically tested to determine availability in an emergency. Testing will also indicate which units need maintenance or replacement. The code requires battery powered units to have a 30-second functional test every 30 days and a 90-minute test annually. The lights must work on battery power the entire test. Written records must be kept of the testing and be available for inspection. (See Fire Fact 016).